



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,844	10/05/2006	Ping Liu	20033-002US1 FP050046US	7080
20985	7590	02/04/2009	EXAMINER	
FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			MUSLEH, MOHAMAD A	
			ART UNIT	PAPER NUMBER
			2832	
			NOTIFICATION DATE	DELIVERY MODE
			02/04/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/558,844	Applicant(s) LIU, PING	
	Examiner MOHAMAD A. MUSLEH	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-25 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 13, 16 and 18-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 11, 12, 14, 15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. **Claims 8-10/13/16/18-25** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected **species 2-16**, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on **11/05/2008**.
2. On 01/14/2009 and during a phone call with the undersigned attorney Hwa C. Lee, Mr. Lee agreed to change the dependency of claims 11-12 to be depending from claim 7.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. In **page 7, lines 40-41**, reference character “**28**” has been used to designate both **a branch pipe** and **a movable slide slice**.
 - b. In **page 8, lines 1-11**, reference character “**29**” has been used to designate a fixed slide slice. However, in **page 7, lines 45-46** the reference character “**30**” has been used to designate the fixed slide slice.Appropriate correction is required.

Claim Objections

4. **Claim 7** is objected to because of the following informalities:
 - a. In **line 4**, “**a electromagnetism**” is believed to be “**an electromagnetism**”
 - b. In **line 4**, “**realize**” is believed to be “**release**”

c. In **lines 12-13**, "...the holding mechanism is electromagnetic and has a set of electromagnetic attracting mechanism...". It is not clear why the recitation "**has a set of electromagnetic attracting mechanism**" is added, since it does not add any further structure, and it has the same meaning as the previous recitation.

d. **Claims 11/14** are the same and both depend from **claim 7**.

e. **Claims 12/15** are the same and both depend from **claim 7**.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. **Claims 7/17** are rejected under **35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. **Claims 7/17** recite the limitation "**the movable bolt**". There is insufficient antecedent basis for this limitation in the claim.

4. **Claims 7/17** are rejected under **35 U.S.C. 112, second paragraph**, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: **claims 7/17** language omits the structural relationship between **pothook** and **the movable bolt**.

5. **Claim 11** recites the limitation **"the turn button bar"**. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country, in public use, or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 7/11-12/14-15/17** are rejected under **35 U.S.C. 102(b)** as being anticipated by **Kamino et al. US 5252933 A [Kamino]**.
7. Regarding **claim 7**, at **[figs. 1-15] Kamino** teaches a connecting and breaking mechanism **[8/9/10/60]** to connect and break the circuit provided with at least a set of movable contacts **[8/8]** and stationary contacts **[10/10]**, an electromagnetism drive **[60]** mechanism to control the contacts **[8/10]** to be actuated so as to release closed circuit, a housing **[5]** to accommodate the movable contact **[8/8]** and stationary contact **[10/10]**, an arc-extinguishing mechanism **[7]** disposed in the housing **[5]** and corresponded to the movable and stationary contacts **[8/10]**, a case **[3]** connected to a base **[1]** to accommodate the electromagnetism drive mechanism **[60]**, a bedplate **[the inside part of element 3, near elements 12/31]** associated with the case **[3]**, and a holding mechanism **[30]** disposed on the bedplate to hold the contacts to connect the circuit after the contacts are connected, wherein the holding mechanism **[30]** is electromagnetic and has a set of electromagnetic attracting mechanism **[35/36/31]** in which the movable iron core **[31]** is made to be a pothook or a baffle mechanism, the

Art Unit: 2832

movable iron core is attracted so that the pothook or baffle [110/112/113] keeps the switch closed by hitching or ramming the movable bolt [17] when the electromagnetic attracting mechanism is powered on.

8. Regarding **claims 11/14**, a selection switch mechanism [75] disposed on the bedplate [the inside part of element 3, near elements 12/31], wherein the selection switch mechanism [75] comprises a set of movable [83/84] and stationary [80] slide slices, in which the movable slide slice moves along with the turn button bar [77], the selection switch may move both in the rotary direction and in the vertical direction to control the operating state of the switch [c. 7, l. 1-13].

9. Regarding **claims 12/15**, a selection switch mechanism [75] disposed on the bedplate [fig. 2], wherein the selection switch mechanism [75] comprises two sets of micro buttons [fig. 11A to include AUTO/TRIP/OFF/RESET/TEST/ISO] and a mechanism for connecting and breaking the circuit comprised of a turn button [75], a turn button bar [77], a movable slide slices [84] and a stationary slide slices [80].

10. Regarding **claim 17**, at [figs. 1-15] Kamino teaches a connecting and breaking mechanism [8/9/10/60] to connect and break the circuit provided with at least a set of movable contacts [8/8] and stationary contacts [10/10], an electromagnetism drive [60] mechanism to control the contacts [8/10] to be actuated so as to release closed circuit, a house [5] to accommodate the movable contact [8/8] and stationary contact [10/10], an arc-extinguishing mechanism [7] disposed in the housing [5] and corresponded to the movable and stationary contacts [8/10], a case [3] connected to a base [1] to accommodate the electromagnetism drive mechanism [60], a bedplate [the inside part

of element 3, near elements 12/31] associated with the case **[3]**, and a holding mechanism **[30]** which is an elasticity type, disposed on the bedplate to hold the contacts to connect the circuit after the contacts are connected, wherein the holding mechanism **[30]** comprises a pothook or baffle **[110/112/113]** to keep the switch closed by hitching or ramming the movable bolt **[17]** by elasticity, a spring **[115]**, a stop button **[fig. 9A]** and a reset button **[fig. 9A]**, and wherein the pothook or baffle **[110/112/113]** abuts against the movable bolt **[17]**.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **See the notice of references cited (PTO-892).**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Mohamad A. Musleh** whose telephone number is **(571) 272-9086**. The examiner can normally be reached on M-F (7:30-5:00 Est. Time) 1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Elvin G. Enad** can be reached on **(571) 272-1990**. The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval **(PAIR)** system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **<http://pair-direct.uspto.gov>**. Should you

Art Unit: 2832

have questions on access to the Private PAIR system, contact the Electronic Business Center **(EBC) at 866-217-9197 (toll-free)**. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call **800-786-9199 (IN USA OR CANADA) or 571-272-1000**.

**/Mohamad A Musleh/
Examiner, Art Unit 2832**

**/Elvin G Enad/
Supervisory Patent Examiner, Art
Unit 2832**